

July 7, 2006

New Jersey Department of Environmental Protection  
Air Quality Planning  
P.O. Box 418  
401 E. State St.  
Trenton, NJ 08625-0418

**VIA E-MAIL / REGULAR MAIL**

**Subject: Comments on SIP White Papers**

Dear Sir/Madam:

Valero Refining Paulsboro respectfully submits the following comments related to several white papers prepared in support of proposals for the SIP Revision Process. Valero supports the process of evaluating key sources for potential emission reductions and believes these activities should be undertaken with significant care and resources to identify potential areas for emission reductions. We appreciate the time and effort thus far by the State and look forward to working with you in the coming months. Valero also appreciates the opportunity to provide the following comments in regard to the SIP White Papers.

Upon our review, the white papers pertaining to the Petroleum Refining Industry appear to require significantly more research and effort. Following are a summary of Valero's comments in regards to SCS004A – Process Heaters & Boilers in a Petroleum Refinery, SCS004B – Flares in a Petroleum Refinery, and SCS004C – Fluid Catalytic Cracking Unit & Fluidized Coking Unit in a Petroleum Refinery

Valero's comments can be placed in the following categories, emissions baseline accuracy, accuracy of cost evaluations for technology, expected emissions reductions, and issues related to the EPA and State consent orders.

**Emissions Baseline Accuracy - All White Papers (SCS004A, SCS004B, and SCS004C) for Petroleum Refineries**

All the White Papers related to Petroleum Refining fail to document the source for the baseline emissions. In fact, the reference for the data is a 2002 data set. Obviously, emissions data exist that are much more up to date, accurate, and prudent to use in a situation where the department is assessing where reductions in emissions sources may be achieved.

Using data obtained from 2002 does not account for any reductions already obtained by refineries in the State of New Jersey since that time. Additionally, this baseline does not account for the future emission reductions to be obtained by refineries that are implementing EPA 114 or State of New Jersey settlements and clean fuels projects.

For instance, Valero has completed significant environmental improvement projects at the Paulsboro Refinery and has several more projects in various phases of implementation that have been agreed to in consent orders with the State of New Jersey and the EPA. These projects have already reduced and will continue to reduce emissions from our facility. One example is the construction and operation of the first Regenerative Wet Gas Scrubber in the United States at the Paulsboro Refinery. The new WGS went on line in 2004 and we have observed reduced SO<sub>2</sub>

emissions by over 90% when comparing our 2005 and 2002 annual emissions statements. This is an obvious example of the need to use the most current and available data to begin the process of establishing policy. Based on our knowledge of the various refineries in the State of New Jersey, we are certain that other facilities are going through the same improvement processes. The emission baseline data used is the foundation for all future decisions and requires thorough reviews and evaluation.

Without accurate data to determine a baseline it is unclear to Valero how further reductions in emissions are evaluated or even warranted. Therefore, we request the Department document where the 2002 data set was developed and also strongly suggest the most recent set of emission data available should be used in this process.

**Cost Evaluations for Technologies - All White Papers (SCS004A, SCS004B, and SCS004C) for Petroleum Refineries**

The first issue with evaluating the costs for technology is to understand the dataset that establishes the baseline emissions. It is impossible to rely on the 2002 dataset as it is outdated and obviously does not reflect the major improvements refineries have made in regards to emissions control since 2002. It also does not take into account the projects that have already been agreed upon by the EPA and State of New Jersey in consent orders. Based on the Paulsboro example provided above in relation to SO<sub>2</sub> emissions and our FCC, it is obvious that the cost per ton of SO<sub>2</sub> would significantly increase if a 95% reduction has already been obtained since 2002.

The capital and operating costs presented in all the white papers are not documented. Valero has witnessed on more than one occasion, in discussions with the State, that the evaluations being performed in regards to technology and costs are not representative of the true costs to install equipment in the State of New Jersey and to retro-fit facilities at the Paulsboro Refinery. Based on our experience and the lack of documentation in the white paper, we have no way of validating the technology or understanding where the information was derived. Examples of major cost differences we have observed are related to labor rates, steel pricing, petroleum costs, and labor availability. In addition, the Department should be cognizant of the fact that installation costs need to evaluate any retro-fitting or ancillary equipment required for installation. For instance, as we are already in the midst of engineering and procuring flare gas recovery equipment, Valero can assure you a cost of \$1-\$5 million to install flare gas recovery is absolutely impossible. The costs are greater than \$20 million taking into account all ancillary equipment and infrastructure needs to support such systems.

Therefore, we ask that the Department document the source of its capital and operating cost data and verify that it reflects the significantly higher construction costs in New Jersey.

**Expected Emissions Reductions Using Proposed Technologies - All White Papers (SCS004A, SCS004B, and SCS004C) for Petroleum Refineries**

All the White Papers related to Petroleum Refining fail to document the basis and sources of information related to proposed reductions using the various technologies proposed. Additionally, it is pre-mature to assess the technologies for cost effectiveness without having accurate baseline emission data.

Therefore, Valero requests that the Department provide documentation and analysis of:

- the current baseline;
- technologies currently used at facilities and reductions observed to date;
- how the reductions were determined using the various technologies presented in the White Papers;
- the new technologies already agreed upon in the EPA and State settlements and there proposed reductions;
- any other reductions that may be obtained through regulatory changes; and
- any cost calculations.

#### **EPA and State Consent Decrees**

The information provided in the White Papers related to EPA and State Consent decrees is not accurate or at a minimum misleading. An example is the use of 20 ppmvd NO<sub>x</sub> and SO<sub>x</sub> limits on FCC units. Again, these are simply not accurate or at a minimum misleading. There are short term and long term limits in addition to varying limits among consent decrees, and timing for implementation. This adds another layer of complexity to this process.

We would request the department further analyze the consent decrees for accuracy and consistency and the site specific uniqueness to the decrees.

Valero recognizes the difficulty of managing a process to evaluate emission reduction opportunities in light of the rapid changes and improvements in our industry but it is clear that sufficient data gaps exist in relation to these three White Papers (SCS004A, SCS004B, and SCS004C. Once again, we thank you for the opportunity to comment on the White Papers and look forward to the opportunity to work with you in the coming months. Please feel free to contact me at 856-224-4333 if you have questions or need any additional information

Sincerely,

Sean D. Horne  
Health Safety and Environmental Affairs Director  
Valero Refining – New Jersey